

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577

OUTSTANDING PO REPRINT

Purchase Order IDPO10810

Purchase Order Date 11/20/09

PO Print Date 12/03/09

Page Number 2 of 2

Order From :

VC-MAG002

MAGNA STAINLESS
5775 RUE KIERAN
ST LAURENT, QC H4S 0A3
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	800 363 6646	Requisition Nbr	
Vendor Fax	514 339 1105	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Unit Price	Extended Price
5	M303R2.000	303 ROUND BAR 2"	11/30/09 Yes	✓ 12.00 Yours ppd f 12-8 9/1/12	\$28.7500	\$345.00

Special Inst: MATERIAL: 303 ROUND BAR
NOTE:304/316 NOT ACCEPTABLE

Line Total: \$345.00

Outstanding PO Total: \$1,055.04

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

Change Nbr: 3

Change Date: 11/25/09

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
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OUTSTANDING PO REPRINT

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Page Number 1 of 2

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Buyer Chantal Lavoie
Requisition Nbr
Tax Resale Nbr 10127-2607
Terms Net 30
Currency CAD
FOB

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Unit Price	Extended Price
----------	--	------------------------	----------------------	---------	------------	----------------

Ship To : DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req. Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M303B1.000X2.000	303 BAR 1" X 2"	11/30/09 Yes	12.00 f	Yours ppd	\$41.2500	\$495.00

Special Inst: MATERIAL: AISI 303 STAINLESS BAR
NOTE: 304/316 NOT ACCEPTABLE

Line Total:

\$495.00

4	M303B1.000X1.000	303 BAR 1" X 1"	11/30/09 Yes	12.00 f	Yours ppd	\$17.9200	\$215.04
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Net 11.8 / 9/12/03

Special Inst: AS ABOVE

Line Total:

\$215.04

11/25/09

ACEROS INOXIDABLES

OLARRA



69533

CANADIAN SPECIALTY METALS
81 STEINWAY BLVD.
ETOBICOKE- ONTARIO M9W 6H6 - CAN

Trade Mark - Zeichen des Lieferwerkes
Anagrama del suministrador



**Works Inspector Stamp - Werkssachverständiger
Sello del Inspector**



Certificate type - APZ Nach Certificado tipo		EN 10.204/3.1		Certificate n° - Prüf-Nr Certificado n°		630.235		Date - Datum - Fecha 9 DE ENERO 2009																					
Our order N° Werks - Nr N° de Referencia		398.933		Heat Schmelze Culada		969444		Your order N° Bestell - Nr Pedido N°		074435-AM																			
Steel Grade Werkstoff Calidad		AISI-303 /		According to Entsprechend Corresponde		ASTM A 582/A582M-05																							
Shape and Size - Gegenstand Perity dimension SQUARE 1"		Tolerance - Toleranz Tolerancia ASTM-A484-06 B		Bundles Bunde Buttos		1		Bars Stäbe Barras		70																			
								Weight Gewicht Peso		2.791LBS																			
Requirements - Anforderungen - Exigencias																													
SAE AMS 5640U-07.TYPE 1 QQ-S-764B-70 Amd.2 CONDA EN 10.088-3.2005																													
Melting process / Erschmelzungsart / Proceso de Fusión E.A.F. / A.O.D.				Heat treatment / Wärmebehandlung / Tratamiento térmico 1.050 , 4 HORAS Water / Wasser / Agua																									
Solution annealed/Abgeschreckt/Hipertemple >> Cold drawnw/Gezogen/Estirado																													
Test results - Ergebnis der Prüfungen - Resultados de los ensayos																													
Dimension of Specimen Abmessungen des Probestabes Medida de las probetas		Rp 0.2% N/mm2 MPA		Rp 1% N/mm2 MPA		RM N/mm2 MPA		A %L 5D		A %L 4D		Z %		Hardness Härte Dureza HBW		Impact Test / Kerbschlag / Resiliencia ISO V Jules													
Min.																													
Max.		KSI				KSI																							
Temperature °C 20C		Spec. N° Probe Nr. Pro N°		1		55.691		92.239		49		57		197															
Min.		C		Si		Mn		P		S		Cr		Mo		Ni		Ti		Cu		Co		N					
Max.																													
		0,042		0,32		1,66		0,032		0,305		17,60		0,32		8,50				0,46		0,170		0,0330					
Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional				O.K.				Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad				O.K.				Antimixing test Spektroskop Verwechslungspr Antimezcla				O.K.				Grain Size Korngröße Tamaño de grano					
Remarks - Bemerkungen - Observaciones																													
MECAMAX-PLUS Free from Mercury contamination No Weld Repair. 1.4305.																													
EDV / EDP Acc. EN 10.204 Alfredo Molina Certification Mng. Works Inspector Der Werkssachverständige Inspector de fábrica																													

Acciaierie Valbruna S.p.A.



36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4
Clienti / Kunden / Purchasers:
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
CON MILTON, ONT L5T 5Z1 CAN

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller / User producer

Oggetto Prove: Polished Annealed Peeled
Prüfungszustand: Versuchsgegenstand

Avviso di Spedizione: D-VI08020158
Lieferungsbescheinigung Nr. 158

Ordine nr: B03001929 STOCK
Bestell-/Lagerbestandsnummer

Tipo di Elaborazione: E-AOD
Erzeugnisart / Making process / Mode of elaboration

CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE CERTIFICAT DE RECEPTION EN 10204 (2005), 3.1

Certificato nr: MEST654809/2008/
Prüfung / Prüfzeugnis

Conferma ordine nr: EI08002024
Werkstoffbestätigung

Marchio di Fabbrica:
Zeichen des Lieferanten
Trade mark
Eigenschaft des Produkts

Funzione del Collaudatore:
Stempel des Werksachverständigen
Inspector's stamp / Function of the Inspector



Specifiche:
Anforderungen / Requirements / Eigenschaften
VAL CANADA 2 303 A
ASTM A314 97 S30300
DOD-F 24669 6 S30300
(0) SEC II PT-A 2007 EDITION

AMS 5640 U TYPE 1
ASTM A320 2008 B8F
MIL-S-862 B/1 303

ASME SA320 2007 B8F
ASTM A582 2005 S30300
QQ-S-764 B/2 303

Qualità: T-303
Werkstoffbezeichnung

Marca: VPAU1882 VALPLUS
Markenbezeichnung / Brand Name

Punzonatura: T-303
Kantenschlagmarkierung / Marking

Pos. nr. Pos. nr. Item nr.	Oggetto Gegenstand Product / Designation	Dimensioni Abmessungen Dimensions	Tolleranza Toleranz Tolerance	Lunghezza Länge Length	Colata Guss Cast	Pezzi Stückzahl Pieces	Peso Gewicht Weight	Lotto nr. Losnr. Lot nr.
0020	Round	2.0000	484-068	12 / 13	422074	2	10.285	806505090

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind in vollem Maße erfüllt
The material has been verified in accordance with the requirements
Le matériel a été trouvé conforme aux exigences

Controllo antimiscelanza: OK
Vermischungsprüfung: Isotopenspezifisch durchgeführt
Alloying check performed: OK
Controllo intertempo: OK

Controllo visivo e dimensionale: soddisfa le esigenze
Besehtigung und Abmessung: ohne Beanstandung
Visual inspection and dimensional check satisfactory
Controlle visuel et dimensionnel: satisfaisant

TEST	Prova / Prüfung Versuch / Test Werkstoffbezeichnung Material designation	Temperatura Temperatur Temperature	Snervamento Zugversuch Tensile strength	Resistenza Zugfestigkeit Tensile strength	Allungamento Zugdehnung Elongation	Strizione Zugversuch Reduction of area	Resistenza Zugversuch Tensile strength	Durezza Härte Hardness
		°F	Rp 0.2 K.S.I.	Rm K.S.I.	E 4d %	RA %		HB
Valori richiesti / Anforderungen / Required values		min max	30	75	35	50		140 223
A	12.5	68	L	45	89	52	58	184

Analisi chimica

Chemical analysis / Zusanmenetzung / Chemical analysis / Analyse chimique

Pos. nr. Pos. nr. Item nr.	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %
422074	0.050	0.42	1.85	17.45	0.49	0.53	8.38	0.070	0.03	0.30

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.
Annealing temperature: 1940°F for 1.5h/water.
Micro and macro etch test: OK
Material is DFARS Compliant.

Melting and manufactured in Italy. No welding or weld repair. Material free from Mercury or radio-activity contamination.
The Quality Management System is Certified acc. Pressure Equipment Directive (97/23/EC) Annex 1 s. 4.3 by TÜV and LLOYD'S

Vicenza, 15/07/08 V00008 Med. n. 000	Il collaudatore di stabilimento / der Werksachverständige / Works Inspector / L'agent d'usine M. Rizzotto	Pagina: 1 di 1
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Magna Stainless

5775 Kieran St, Saint-Laurent, Quebec H4S 0A3
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105



PACKING LIST

Page 1 of 1

I020368

SOLD TO:
DART AEROSPACE LTD
1270 ABERDEEN STREET

SHIP TO:
DART AEROSPACE LTD
1270 ABERDEEN STREET

HAWKESBURY, ON
K6A 1K7
Contact: CHANTAL

HAWKESBURY, ON
K6A 1K7
Ship Terms: PREPAID

ASA#

SPECIAL INSTRUCTIONS



Currency	Sales Person	Customer Phone	Customer Fax	Customer PO	
CANADIAN DOLLARS	ERYCK BLAIS	(613) 632-5200	(613) 632-1053	P0010810	
Sales Order	Terms	Ship Via	Date Ordered	Date Required	Date Shipped
W021807	NET 30 DAYS	NIR:R-557065-1	11/20/09	12/03/09	12/03/09

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
1		PC	STAINLESS ROUNDS SRB 303 2" x R/L 12'8" 136 LB / 1 PC	L034043	422074	1
1		PC	STAINLESS SQUARES SSQ 303 CD 1" x R/L 11'8" 40 LB / 1 PC	L034044	969444	1
Bundles: 1				Approx Weight:		176 LB

Received by: _____ Date: _____ Signature: _____

Purchase Order Receipt Listing

Page 1 of 1

December 04, 2009 6:20:45 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO10810 Receipt Dates from 12/4/2009 to 12/4/2009 All Line Item Types

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID/Vendor Name		VC-MAG002	Magna Stainless								
PO10810	4		M303B1.000X1.000	f	11/30/2009	12/4/2009	11.8000	\$17.92	0.0000	0	\$211.46
CAD	No		303 BAR 1" X 1"	f	12.0000	Stores		\$211.46	0.0000	0	
			113341								
	5		M303R2.000	f	11/30/2009	12/4/2009	12.8000	\$28.75	0.0000	0	\$368.00
	No		303 ROUND BAR 2"	Each	12.0000	Stores		\$368.00	0.0000	0	
			113341								
Total Received Quantity:											24.6000
Total Qty to Inspect (PO U/M):											0.0000
Total Reject Quantity:											0.0000
Total Receipt Value:											\$579.46
Total Balance Due Quantity:											0.2000

Receiving Report

Date: 9/12/3

Batch No: M113341

Supplier: MALINA

Dart P/O: 10810

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☒ N/A ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC6 Inspection ☒ N/A ☐
 Work Order estk2109 N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M353	B1-000 X2-000	12	0	0	12	

Initials of receiver (if shipment OK) Level 12 CU

Production/Admin: 9/12/4
 Date
 Received/Costing CU
 Initial

Location _____

Receiving Report

Date: 10/9/01

Batch No: M115555

Supplier: MAGNA

Dart P/O: 12403

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☒ N/A ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC6 Inspection OK 10/09/01 N/A ☒
 Work Order N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

Production/Admin:
 Date: 10/9/01
 Received/Costing
 Initial

Location

Page 1 of 1

All amounts are calculated in domestic currency.

Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID\Vendor Name		VC-MAG002	Magna Stainless								
PO12403	1		M303B1.000X1.000 f	f	8/26/2010	9/1/2010	12.0000	\$21.58	0.0000	0	\$258.96
CAD	No		303 BAR 1" X 1" f 115555	f	12.0000	DESJ02		\$258.96	0.0000	0	
	2		M303B1.000X03.000 f	f	8/26/2010	9/1/2010	12.0000	\$80.50	0.0000	0	\$966.00
	No		303 BAR 1" X 3' f 115555	f	12.0000	DESJ02		\$966.00	0.0000	0	
Total Received Quantity:											24.0000
Total Qty to Inspect (PO U/M):											0.0000
Total Reject Quantity:											0.0000
Total Receipt Value:											\$1,224.96
Total Balance Due Quantity:											0.0000



Magna Stainless

5775 Kieran St, Saint-Laurent, Quebec H4S 0A3
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105



PACKING LIST

Page 1 of 1

I031654

SOLD TO:
DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

SHIP TO:
DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

SPECIAL INSTRUCTIONS

****INCOMING ***

Contact: CHANTAL

Ship Terms: PREPAID



Currency		Sales Person	Customer Phone	Customer Fax	Customer PO		
CANADIAN DOLLARS		DAVE MC VETY	(613) 632-5200	(613) 632-1053	12403		
Sales Order	Terms		Ship Via		Date Ordered	Date Required	Date Shipped
W033912	NET 30 DAYS		NIR:R-557065-1		08/16/10	08/24/10	09/01/10

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
1		PC	STAINLESS - LB 303 FLAT 1" X 1" X 12' LG 42 LB / 1 PC	L042235	989186	1
1		PC	303 FLAT 1" X 3" X 12' LG 131 LB / 1 PC	L042236	E212478	1
MATERIAL IS PER ASTM A582 MILL TEST + CDEC REQUIS AVEC LIVRAISON						
<i>CMH</i> 10/09/07				<i>Boh/01</i>		
Bundles: 1				Approx Weight:		173 LB

Received by: _____ Date: _____ Signature: _____



230 02 Roma Viale R.C. - Valleggeri 1 - 00146
Tel. +39064874111 - Fax +390648742212
Internet: www.rodacciai.com - e-mail: info@rodacciai.com



CERTIFICATO DI COLLAUDO Inspection Certif. N. 039976 Date 15/07/2010

Secondo According to EN 10204:2004 3.1

DESTINATARIO - Cargo-Receiver **CLIENTE** - Customer

ORDINE - Order N. 450301 Date 8/01/2010 **D.d.T.** - Delivery note N. 09362/13 Date 27/07/2010

Weight Lb 5.229,00
Tolerance + 0,000 - 0,102 mm **Bars Length** 3.660 - 3.960

QUALITA' - Grade **STANDARD** Type AISI 303 ✓ **WNR** UNS S 30300

Mark RODACCIAI 303 PLUS

COLATA - Heat 989186 ✓

PROFILO - Shape SQUARE

DIMENSIONE - Size 1" ✓

ESECUZIONE - Form of delivery COLD DRAWN

ANALISI CHIMICA DI COLATA - Cast analysis % by mass

C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Co
0,046	1,720	0,430	0,260	0,034	18,500	8,500	0,460	0,470	0,170

N
0,0380

CARATTERISTICHE MECCANICHE ALLO STATO DI FORNITURA

Mechanical properties of delivered material

		Tested	Max
Tensile Strength	Rm PSI	91924,0	
Yield Strength	Rp(0,2) PSI	54516,0	
Elongation	A 4 (%)	48,0	
Hardness	HBW	187,0	241
Reduction of area	Z (%)	58,0	

NOTE - Notes

According to : AMS 5640U type 1 2007 ASTM A 320/A320M-10

ASTM A 582/AS82M-05 ASTM A751-08

ASTM A484/A 484M 10

Micro and Macro structure : Satisfactory

The material was produced by EF + A.O.D.

No Weld Repair - Free of Mercury contamination

Pag. 1 / Segue

Inc 08-31-10

PO: P01112 Part #:

P01112 - 989186

10/09/07

0013448



23432 Rodacciai S.p.A. - Via Leopolda 1 - 00146
Tel. +39061878111 - Fax +39061878112
Internet: www.rodacciai.com - e-mail: info@rodacciai.com



Segue certificato di collaudo
Inspection Certificate's continuance

N. 039976 Date 15/07/2010

NOTE - Notes

100% crack tested by eddy current method: OK
Heat treatment = 1940°F quenched in water
The raw material was melted in Spain.
This product was manufactured in Italy.
Material according to our specification Nr. 047

We certify hereby, that the above mentioned products are consistent with the order prescriptions. This certificate was generated by data system acc. to EN 10204, it is not necessary to be signed for validity.

823768 - PO# P00504AM005

MONTANSTAHL

special profiles in steel

Tel: +41 (91) 6416-800
Fax: +41 (91) 6416-804
email: info@montanstahl.com

004413

mill test certificate

product
Flat - ACD 1 x 3 Inch 11-13'

mill test certificate according to

Customer specs

size standards
PT 111

grade
303

grade standards
ASTM A582/A582M

bundles
823762-823771

order n°
Consignment Stock #4
(29894, 29739)

net weight
5057 lbs

execution
ACD

marking
EAF/AOD

heat	C	Si	Mn	P	S	Ni	Cr	Mo	Ti	Al	N	Cu	Pb	V	Co		
E212478 ✓	0.059	0.61	1.70	0.032	0.259	8.56	17.71	0.35			0.022	0.63			0.10		
tensile strength		yield strength			elongation		area reduction		hardness		impact test						
Rm		Rp 0.2%			Rp 1%		A5		Z		HB		KV				
88 ksi		59 ksi			46 %		64 %		167								

- We hereby confirm that the material certified in this document is conform to enclosed data sheet
- Material is produced in compliance with ROHS (2002/95/EC)
- Material free from Mercury and radioactive contamination

- Country of melt: Spain
- Country of manufacturing origin: Switzerland



and 10/07/07

Trace Mark



date

05.11.2008

The works' inspector

J. Kupari

Inc 08-31-10

S00817PRO09-2 MAGNA STAINLESS PO: P011112 Part #:

1.00PC 131.00LB

P011112-

C013464



Montanstahl
CH - 6855 Stabio

PT111

**DATA SHEET FOR ACD STAINLESS STEEL FLAT BARS IN
GRADES 303, 304 / 304L AND 316 / 316L**

Applicable standards		Rev.	Grade		
			AISI - 303 UNS - S30300	AISI - 304/304L UNS - S30400 UNS - S30400	AISI - 316/316L UNS - S31600 UNS - S31603
ASTM	A320/A320M	2004	X		X
	A484/A484M	2005	X	X	X
	A582/A582M	2005	X		
	A276	2008a		X	X
	A370	2005	X	X	X
	A479/A479M	2006a		X	X
AMS	5640U (type 1)	2007	X		
	2241P	2005	X		
	5653F	2002			X
	5648K	2002			X
	S 7720 A	1997			X
	5639H (type 1)	2002		X	
	5647H	2002		X	
	2248E	1993		X	X
	QQ S 763A	2003		X	X
ASME	SA479	2007		X	X

Chemical values

Grade	C ⁽¹⁾	Si ⁽¹⁾	Mn	Ni	Cr	Mo	S ⁽¹⁾	P ⁽¹⁾	N ⁽¹⁾	Cu ⁽¹⁾	Co ⁽¹⁾	Zr ⁽¹⁾
303	0,15	1	2 ⁽¹⁾	8-10	17-19	0,6 ⁽¹⁾	0,35 ⁽²⁾	0,15	0,1	0,75	0,1	0,60
304/304L	0,03	0,75	2 ⁽¹⁾	8-10,5	18-20	0,5 ⁽¹⁾	0,03	0,04	0,1	0,50	0,1	
316/316L	0,03	0,75	1-2	10-14	16-18	2-3	0,03	0,04	0,1	0,75	0,1	

⁽¹⁾ Maximum values

⁽²⁾ For thicknesses $\leq 0,25''$: $S_{min} = 0,20$

Mechanical values^{(A) (B)}

Grade	Thickness	TS ⁽¹⁾ [KSI]	YS ⁽¹⁾ [KSI]	EL ⁽¹⁾ [%]	RA ⁽¹⁾ [%]	HB ⁽¹⁾
303	Up to 0.5"	75	30	30	40	140-241
	Over 0.5"	75	30	35	50	223
304/304L	Up to 0.5"	90	45	30	40	140-223
	Over 0.5"	75	30	40	50	140-223
316/316L	Up to 0.5"	90	45	30	40	140-223
	Over 0.5"	75	30	30	40	140-223

⁽¹⁾ Maximum values; hardness is measured in centerline of width after removal of specific surface layer (see ASTM A320)

⁽²⁾ Minimum values

^(A) Cold drawn flat bars are not intentionally strain hardened but drawn to specific dimensional tolerances.

^(B) Cold drawn flat bars have a higher magnetic permeability than HRAP flat bars.

- Solution annealed at 1050°C and water quenched prior to cold drawing.
- Intergranular corrosion test according to ASTM A262 practices A, C & B (where applicable)
- Micro and macro structure: OK
- Grain size per ASTM E112: 5-7
- No welding or weld repairs
- Material free of contamination from mercury or metals liquid at ambient temperature
- Material DFARS compliant

GQ 03/02/2010 SPECIFICA DI
VENDITA

\\nas1\daten\gestione\specifiche\vendita\ven_piatti_trefilati_inox - ius_pt111.doc

Inc 08-31-10

00817PR009-2 MAGNA STAINLESS PO: P011112 Part #:

1.00PC 131.00LB

Signature
10/02/07



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO12403

Purchase Order Date 8/13/10

PO Print Date 8/13/10

Page Number 1 of 1

Order From :

VC-MAG002

MAGNA STAINLESS
5775 RUE KIERAN
ST LAURENT, QC H4S 0A3
CA

Contact Name

Vendor Phone

800 363 6646

Vendor Fax

514 339 1105

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAXED
8/13/10

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M303B1.000X1.000	303 BAR 1" X 1"	8/26/10 Yes	12.00 f	Yours ppd	\$21.5800	\$258.96
Special Inst: MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE							
2	M303B1.000X03.000	303 BAR 1" X 3'	8/26/10 No	12.00 f	Yours ppd	\$80.5000	\$966.00

Special Inst: AS ABOVE

PO 10/9/10

PO Total:

\$1,224.96

**MATERIAL CERTIFICATION
REQ'D UPON DELIVERY**

W CL

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

Change Nbr: 1

Change Date: 8/13/10

SPECIFICATION

PURCHASE MATERIAL: AISI 303 SS BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)



SPECIFICATION: ASTM A582

PART NUMBER: M303B | T.TTT | X | WW.WWW |
 THICK | WIDTH |

WHERE "T.TTT" = THICKNESS IN INCHES
AND "WW.WWW" = WIDTH IN INCHES

EG. 0.5" x 3.0" BAR = M303B0.500X03.000

~~17-4 Bar 1.250" x 2" x 2 ft~~

D4148-3

1" x 3.00

303 SS.

BAR

12

8

4

4

34

30

6

6

6

0

0

60

12

192

0

24

32

32

80

24

24

120

120

200

40

10

30

24

10

12

12

12

24

12

24

80

40

12

6

12

24

12

10

6

20

30

40

12

12 ft

12 ft

12 ft

M174B2.000X01.500	2.412105263
M174PH-H900B3.937X4.750	15.00431263
M174PH-H900R1.000	72.96584177
M174PH-H900R1.375	75.65768421
M2024T3S.040	356.4229895
M2650-6	29.84286747
M303B1.000X1.000	2.895667318
M303B1.000X2.000	1.83159
M303B1.500X03.000 1" x 3"	5.173647368
M303B2.000X1.750	4.475354211
M303R0.500	11.65344901
M303R0.750	81.95921053
M304B0.500X2.500	417.8467105
M304EX0.75-16F	297.1794868
M304R1.00	8.210526316
M304R0.750	10.51168421
M304S12GA	70.28030015
M304S26GA	6.301324331
M304TR0.500W.035	83.69519575
M304TR0.750W.065	1.212994737
M304TR1.000W.049	3.202610316
M304TS0.500W.049	130.6874427
M304TS0.750W.049	315.3345074
M304TS0.750W.065	132.0615288
M4130NB0.500X03.000	41.78473684
M4130NT0.500W.049	5.722631579
M4130NT0.750W.049	37.19178947
M6061T6B0.187X04.000	7.874052632
M6061T6B0.250X02.500	3.837894737
M6061T6B0.250X06.000	11.46773684
M6061T6B0.375X00.750	3.873942105
M6061T6B0.500X05.000	29.14684211
M6061T6B0.500X06.000	21.61113684
M6061T6B0.750X00.250	5.619157895
M6061T6B0.750X00.750	1.765030004
M6061T6B00750X00.125	15.80833158
M6061T6B1.000X02.000	11.75260526
M6061T6B1.000X04.000	33.89348421
M6061T6B1.000X06.000	2.325987994
M6061T6B1.000X12.000	13.89175789
M6061T6B1.000X15.000	29.85052632
M6061T6B1.500X02.000	1.078557895
M6061T6B1.500X04.000	3.476266098
M6061T6B2.000X04.500	2.495788947
M6061T6B30000X01.500	1.159783811
M6061T6R0.625	43.44222632
M6061T6R0.750	7.119031579
M6061T6R1.000	1.183663158

0 74

0 993.555733

0 0

0 29.09473684

0 204.1

0 144

0 129.490217

0 63.5

0 30.841584

0 498.4837258

0 367.9466048

0 326.764885

0 24

0 67.333

0 139.1667

0 73.42

0 30.4134

0 42

0 18.1471

0 49.8636

0 43.2814

0 16.5

0 36.5883

0 99.3017

0 50.422

0 77.1

0 12

0 16

0 46.3

0 15.2863

0 11.2643

0 19.62421

0 23.1789

0 77.5

0 12.11684211

0 3.68

Chantal Lavoie

From: Christina Antoniou [cantoniou@magnastainless.com]
Sent: August 12, 2010 11:30 AM
To: Chantal Lavoie
Subject: RE: QUOTE

Hello Chantal,

303 Flat 1 x 3 x 150" lg approx
1 bar \$ 966.00/pc
1 ½ weeks delivery

Thank you

Christina Antoniou
Magna Inoxydable et Aluminium
ventes internes aérospatiale/inside sales aerospace
5775 rue Kieran
St Laurent QC, H4S 0A3
Tel: (514) 339-1211 Fax: (514)339-1105
www.magnastainless.com

From: Chantal Lavoie [mailto:clavoie@dartaero.com]
Sent: August 11, 2010 1:09 PM
To: Christina Antoniou
Subject: RE: QUOTE

Hi Christina,
Please advise price & delivery on material.
303 bar 1" x 3" x 12ft
Thanks
Chantal

From: Christina Antoniou [mailto:cantoniou@magnastainless.com]
Sent: August 11, 2010 10:49 AM
To: Chantal Lavoie
Subject: RE: QUOTE

Bonjour Chantal,

Voici les prix ci dessous

Pour le item 1 le 1 ½ x 2 est la seule dimension disponible a la moment, déjà vérifier avec 3 fournisseurs

8/12/10

Si vous avez des questions SVP n'hésiter pas de nous contacter

Merci beaucoup !

Christina Antoniou

Magna Inoxydable et Aluminium

ventes internes aérospatiale/inside sales aerospace

5775 rue Kieran

St Laurent QC, H4S 0A3

Tel: (514) 339-1211 Fax: (514)339-1105

www.magnastainless.com

From: Chantal Lavoie [mailto:clavoie@dartaero.com]

Sent: August 10, 2010 1:29 PM

To: Christina Antoniou

Subject: QUOTE

Hi Christina,

Please advise price & delivery on material.

17-4 bar 1.250" x 2" x 24 ft OFFRE 1 1/2 " X 2" X 12' LG \$ 986.12 EACH LENGTH 1 1/2 SEMAINE DE LIVRAISON

303 bar 1" x 1" x 12 ft 1 BAR \$ 259.00/PC 1 1/2 SEMAINE DE LIVRAISON

~~303 bar 1.5" x 3" x 12 ft 1 BAR \$ 1209.00/PC 1 1/2 SEMAINE DE LIVRAISON 1 1/2 SEMAINE DE LIVRAISON~~

6061t6 round bar 1" x 12ft 1 BAR \$ 85.00/PC 1 1/2 SEMAINE DE LIVRAISON

Thanks

Chantal

TRANSMISSION VERIFICATION REPORT

TIME : 08/13/2010 11:42
NAME :
FAX :
TEL :
SER.# : F9N212739

DATE, TIME	08/13 11:41
FAX NO./NAME	15143391105
DURATION	00:00:18
PAGE(S)	01
RESULT	OK
MODE	STANDARD ECM

DART AEROSPACE LTD		Work Order: 62300
Description: Sill Fitting		Part Number: D4111-3
Inspection Dwg: D4111	Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.00	+ .030	.985	✓		VERN J1-3	
Ø.128	+ .005 - .001	.128	✓		"	
.500	+ .010	.500	✓		"	
.25	+ .030	.244	✓		"	
.25	+ .030	.250	✓		"	
.500	+ .010	.500	✓		"	
.313	+ .004 - .001	.314	✓		"	
.610	+ .010	.610	✓			
.500	+ .010 - .030	.494	✓		"	
2.22	+ .030	2.221	✓		"	
1.250	+ .010	1.250	✓			
.03	+ .030	.030	✓		R-G	
.100	+ .010	.098	✓		VERN J1-3	
1.030	+ .010	1.030	✓		"	
.300	+ .010	.304	✓		"	
.800	+ .010 - .030	.800	✓		"	
.74	+ .030	.741	✓		"	
40°	+ .5°	40°			protector	
.18	+ .030	.190	✓		VERN J1-3	
.125	+ .010	.124	✓		"	
.35	+ .030	.335	✓		"	
1.75	+ .030	1.757	✓		"	
.400	+ .010	.401	✓		"	
.50	+ .030	.498	✓		"	

Measured by: <u>SL</u>	Audited by: <u>[Signature]</u>	Preliminary Approval: <u>N/A</u>
Date: <u>10/10/14</u>	Date: <u>10-10-14</u>	Date: <u>—</u>

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

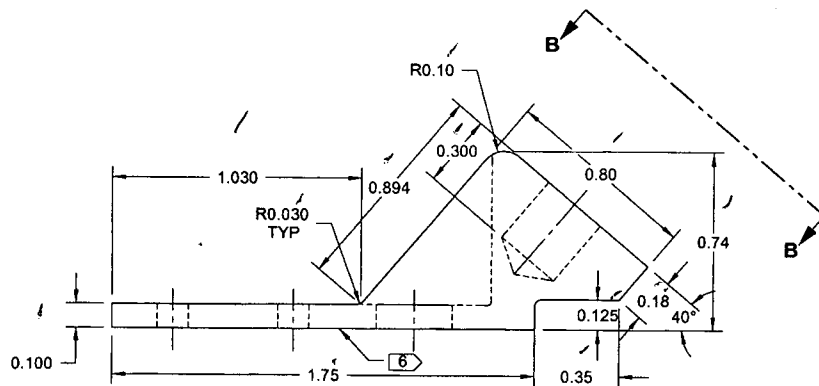
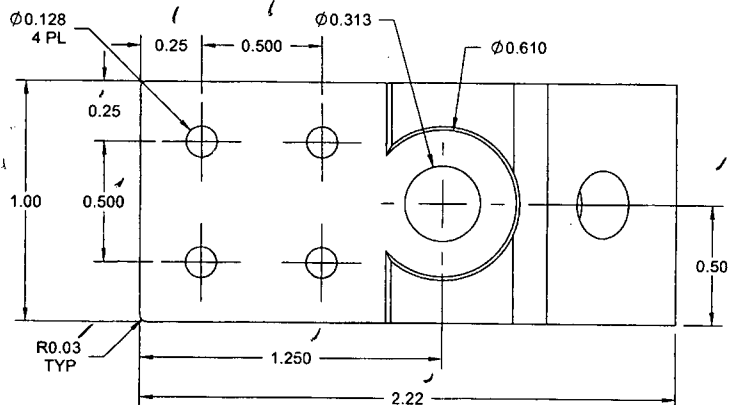
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

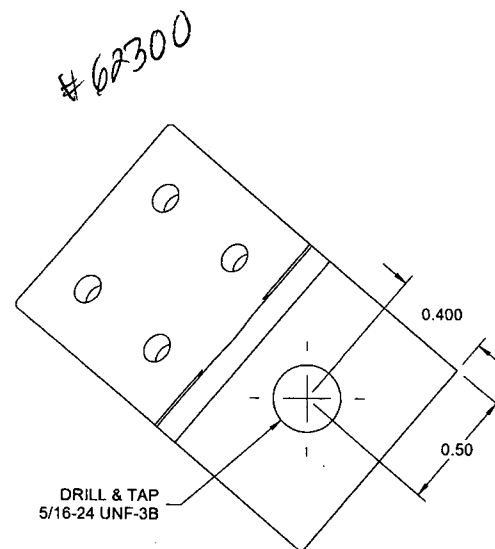
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4111-3 SILL FITTING



VIEW B-B

NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276 OR ASTM A582 PER DART SPEC M303B OR M304B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENT P/N D4111-3 & B/N PER QSI 044 6.1
- 7) WEIGHT: 0.13 lbs

RELEASED
2010-09-23

DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JFH		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4111	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SILL FITTING	NTS
DATE	10.07.20	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

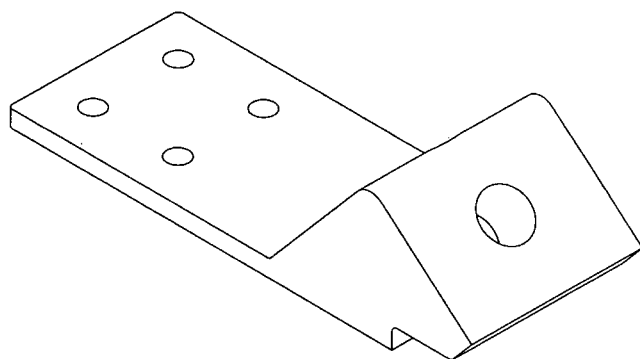
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

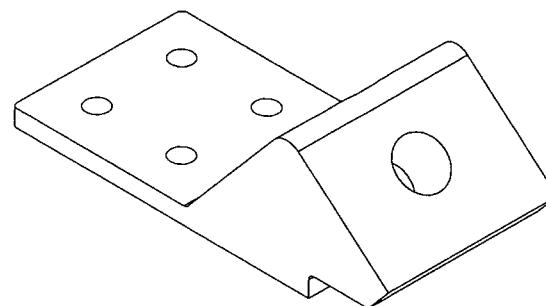
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

#68200



D4111-1 SILL FITTING



D4111-3 SILL FITTING

RELEASED
2010-09-23
JM

A	NEW ISSUE	JPH	10.07.20
REV.	DESCRIPTION	BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4111	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SILL FITTING	NTS
DATE	10.07.20	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, September 24, 2010 3:25:45 PM

Page 1

Work Order ID: 62300



Parent Item: D4111-3



Parent Item Name: Sill Fitting

Start Date: 9/27/2010

Required Date: 10/4/2010

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP REV:A NEW ISSUE 10-09-24 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M303B1.000X1.000

Purchased

No

100

f

13.5989

0.21

0.663158



303 BAR 1" X 1"

SL 10/10/14

Location

Loc Qty

Loc Code

MAT

12

115555

12

.46

MAT53

1.59892

113341

0.36996

.23

113719

1.22896

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 62300

Friday, September 24, 2010 3:25:45 PM

Page 3

Item ID: D4111-3

Accept

Revision ID:

Item Name: Sill Fitting

Start Date: 9/27/2010 Start Qty: 3.00

Required Date: 10/4/2010 Req'd Qty: 3.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10.10.14

R10-10-15
(3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



NOTE: Date & initial all entries




Work Order ID 62300

Friday, September 24, 2010 3:25:45 PM

Page 2

Item ID: D4111-3	Accept		Setup	Start	
Revision ID:				Stop	
Item Name: Sill Fitting					
Start Date: 9/27/2010	Start Qty: 3.00		Cust Item ID:		
Required Date: 10/4/2010	Req'd Qty: 3.00		Customer:		
Reference:					

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00		SL 10/10/14					
130  QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00		Inf. 10-10-14 3					
140  Packaging Packaging	Identify as per dwg & Stock Location: <u>U</u> <u>129</u> Memo	0.00 0.00		U 10-10-14				(3)	

PPP 1X62779

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

